

### REMARKS

Claim 1 has been amended to require a wafer located adjacent to and substantially parallel to the body portion. As now presented, the wafer comprises a shutter, a drive mechanism for causing the shutter to move with respect to the body portion, and an integral latching mechanism for preventing the shutter from moving with respect to the body portion. Support for the current Amendment to Claim 1 is found in the Specification beginning on page 11, line 29 to page 12, line 6. No new matter has been presented in amended Claim 1. Claim 22 has been amended to require the microvalve to include a wafer having a shutter having a latching mechanism integral thereto located adjacent the body portion. Support for the current Amendment to Claim 22 is found in the Specification on page 11, line 29 to page 12, line 6. No new matter has been presented in amended Claim 22. The Amendments as presented provide the claims in a manner consistent with Applicants' telephonic interview with the Examiner on May 19, 2004. Claims 1, 11-18, and 20-24 remain in this Application and are presented for the Examiner's review in light of the following remarks.

### Telephonic Interview

Applicants thank the Examiner for the telephonic interview of May 19, 2004. Even though agreement was not reached with respect to the current presentation of the Claims, Applicants appreciate the Examiner's time in trying to reach agreement with respect to the claimed subject matter.

### Rejection Under 35 U.S.C. §103

Claims 1, 15-18, and 21-24 have been rejected under 35 U.S.C. §103 over Gschwendtner, et al., U.S. Patent No. 5,400,824 in view of Schumm, Jr., U.S. Patent No. 5,837,394. Previous arguments made in regard to the *Gschwendtner* and *Schumm* references remain in effect but will not be repeated for the sake of brevity. Applicants respectfully traverse this rejection for the following additional reasons:

1. Applicants' amended Claim 1 now requires the microvalve to comprise, *inter alia*, a wafer comprising a shutter having a plurality of spaced openings formed therein, a drive mechanism for causing said shutter to move with respect to the claimed body portion, and a latching mechanism for preventing the shutter from moving with respect to the body portion. In other words, the instant Application discloses an integrated (monolithic) system that has the latch, the shutter, and the actuators all integrated on the same wafer.

2. Applicants' amended Claim 22 now claims a process for electrostatically actuating a microvalve including a wafer having a shutter having a latching mechanism integral thereto.

3. Applicants concur with the Examiner's conclusion that the *Gschwendtner* reference does not teach latching a valve. Further, the *Gschwendtner* reference is silent with respect to any suggestion of latching a valve.

4. The *Schumm, Jr.* reference discloses discreet components requiring assembly, to-wit: a sliding valve, a latch, an actuator A (ACT A), and an actuator B (ACT B). All of the disclosed portions discussed in the *Schumm, Jr.* reference are not integral, much less integrated onto a wafer. As shown in Figure 8 of the *Schumm, Jr.* reference, all disclosed components are exterior (not integral) of the shutter mechanism.

5. Further, any discussion of the "valve on a chip" in the *Schumm, Jr.* reference is only directed towards the placement of a semiconductor microactuator on a chip (1:16-20); that is the only microfabricated component disclosed in the *Schumm, Jr.* reference is the microactuator.

In light of the above discussion, it should be obvious to a person of skill in the art that the *Schumm, Jr.* microvalving system is merely a compilation of many individually manufactured parts requiring assembly. Due to these considerations, the *Gschwendtner* and *Schumm, Jr.* references do not disclose, teach, suggest, or render obvious, either singly or in combination, every recited feature of Applicants' claimed invention. To determine obviousness, there must be a teaching or suggestion within the prior art or within the general knowledge of a person of ordinary skill in the field of the invention to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the inventor. *See ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 48 U.S.P.Q.2d 1321 (Fed.Cir. 1998). Thus, Applicants believe that Claims 1 and 22 of the instant invention are unobvious over the prior art cited by the Examiner. Therefore, the Examiner is respectfully requested to reconsider and withdraw the rejection to Claims 1 and 22 under 35 U.S.C. §103(a) herewith.

Because Claims 11, 18, 20-21, and 23-24 all depend directly or indirectly from Applicants' independent Claims 1 or 22, they contain all of their respective limitations. For this reason, Applicants submit that the arguments made above concerning the allowability of Claims 1 and 22 are equally applicable to the claims dependent thereupon under 35 U.S.C. §103(a). Applicants therefore respectfully request reconsideration and withdrawal of the Examiner's 35 U.S.C. §103(a) rejections to dependent Claims 11, 18, 20-21, and 23-24 accordingly.

#### Conclusion

Based on the foregoing, it is respectfully submitted that each of Applicants' remaining claims is in condition for allowance and favorable reconsideration is requested.

Appl. No. 10/048,082  
Atty. Docket No. 7691  
Amdt. Dated June 4, 2004  
Customer No. 27752

This response is timely filed pursuant to the provisions of 37 C.F.R. §1.8 and M.P.E.P. §512, and no fee is believed due. However, if any additional charges are due, the Examiner is hereby authorized to deduct such charge from Deposit Account No. 16-2480 in the name of The Procter & Gamble Company.

Respectfully submitted,  
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June 4, 2004  
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